AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A method comprising:

receiving a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system; and

controlling a self-impedance of the system based on the signal,

wherein the signal is substantially proportional to a difference between a phase of a supply voltage of the system and a phase of a supply current associated with the supply voltage.

2. (cancelled)

3. (currently amended) A method comprising: ~~according to Claim 1,~~

receiving a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system; and

controlling a self-impedance of the system based on the signal,

wherein controlling the self-impedance of the system comprises:

comparing the signal to a threshold value;

determining if the signal is negatively-sloped; and

transmitting the signal to an actuator to change the self-impedance if the signal is less than the threshold value and if the signal is negatively-sloped.

4. (original) A method according to Claim 3, wherein transmitting the signal comprises:

enabling a filter if the signal is less than the threshold value and if the signal is negatively-sloped; and

filtering the signal with the filter based on input requirements of the actuator.

5. (currently amended) A method ~~according to Claim 1~~comprising:

receiving a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system; and

controlling a self-impedance of the system based on the signal,

wherein controlling the self-impedance of the system comprises:

comparing the signal to a threshold value;

determining if the signal is positively-sloped; and

transmitting the signal to an actuator to change the self-impedance if the signal is greater than the threshold value and if the signal is positively-sloped.

6. (original) A method according to Claim 5, wherein transmitting the signal comprises:

enabling a filter if the signal is greater than the threshold value and if the signal is positively-sloped; and

filtering the signal with the filter based on input requirements of the actuator.

7. (currently amended) An apparatus comprising:

a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system, and to determine if a self-impedance of the system should be changed based on the signal; and

an actuator to control the self-impedance of the system,

wherein the feedback circuit is to filter the signal based on input requirements of the actuator and to output the filtered signal to the actuator to control the self-impedance of the system based on the filtered signal.

8. (cancelled)

9. (currently amended) An apparatus according to Claim ~~8~~7, the feedback circuit to:

filter the signal and output the filtered signal if the signal is less than the threshold value and if the signal is negatively-sloped.

10. (currently amended) An apparatus ~~according to Claim 7~~comprising:

a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system, and to determine if a self-impedance of the system should be changed based on the signal,

wherein the determination of whether the self-impedance of the system should be changed based on the signal comprises:

a determination that the signal is less than a threshold value; and

a determination that the signal is negatively-sloped.

11. (original) An apparatus according to Claim 10, further comprising:

an actuator to control the self-impedance of the system,

wherein the feedback circuit is to:

enable a filter if the signal is less than the threshold value and if the signal is negatively-sloped;

filter the signal with the filter based on input requirements of the actuator; and

output the filtered signal to the actuator to control the self-impedance of the system based on the filtered signal.

12. (currently amended) An apparatus ~~according to Claim 7~~ comprising:

a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system, and to determine if a self-impedance of the system should be changed based on the signal,

wherein the determination of whether the self-impedance of the system should be changed based on the signal comprises:

a determination that the signal is greater than a threshold value; and

a determination that the signal is positively-sloped.

13. (original) An apparatus according to Claim 12, further comprising:

an actuator to control the self-impedance of the system,

wherein the feedback circuit is to:

enable a filter if the signal is greater than the threshold value and if the signal is positively-sloped;

filter the signal with the filter based on input requirements of the actuator; and

output the filtered signal to the actuator to control the self-impedance of the system based on the filtered signal.

14. (original) A circuit comprising:

a comparator to receive a threshold value, to receive a signal corresponding to a proximity of an existing operation point of a system to a resonant operation point of the system, and to output a comparator signal indicating whether the signal is less than the threshold value;

a slope determinator to receive the signal and to output a slope signal indicating whether the signal is negatively-sloped; and

a filter to receive the signal, the filter to filter the signal based on input requirements of an actuator and to output the filtered signal to the actuator if the signal is less than the threshold value and if the signal is negatively-sloped.

15. (original) A circuit according to Claim 14, further comprising:

an enable circuit to receive the comparator signal and the slope signal, and to output an enable signal to enable the filter if the comparator signal indicates that the signal is less than the threshold value and the slope signal indicates that the signal is negatively-sloped.

16. (original) A circuit according to Claim 14, the actuator to control the self-impedance of the system based on the filtered signal.

17. (original) A circuit according to Claim 16, the actuator to control the self-impedance of the system to move the existing operation point away from the resonant operation point.

18. (currently amended) A system comprising:

an integrated circuit comprising a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of the integrated circuit to a resonant operation point of the integrated circuit, and to determine if a self-impedance of the integrated circuit should be changed based on the signal;

an actuator to control the self-impedance of the integrated circuit; and

a double data rate memory in communication with the integrated circuit,

wherein the feedback circuit is to filter the signal based on input requirements of the actuator and to output the filtered signal to the actuator to control the self-impedance of the integrated circuit based on the filtered signal.

19. (cancelled)

20. (currently amended) A system ~~according to Claim 18~~ comprising:

an integrated circuit comprising a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of the integrated circuit to a resonant operation point of the integrated circuit, and to determine if a self-impedance of the integrated circuit should be changed based on the signal; and

a double data rate memory in communication with the integrated circuit,

wherein the determination of whether the self-impedance of the integrated circuit should be changed based on the signal comprises:

a determination that the signal is less than a threshold value; and

a determination that the signal is negatively-sloped.

21. (original) A system according to Claim 20, further comprising:

an actuator to control the self-impedance of the integrated circuit,

wherein the feedback circuit is to enable a filter if the signal is less than the threshold value and if the signal is negatively-sloped, filter the signal with the filter based on input requirements of an actuator, and output the filtered signal to the actuator to control the self-impedance of the integrated circuit based on the filtered signal.

22. (currently amended) An integrated circuit die comprising:

an integrated circuit core; ~~and~~

a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of the integrated circuit die to a resonant operation point of the integrated circuit die, and to determine if a self-impedance of the integrated circuit die should be changed based on the signal; and

an actuator to control the self-impedance of the integrated circuit die,

wherein the feedback circuit is to filter the signal based on input requirements of the actuator and to output the filtered signal to the actuator to control the self-impedance of the integrated circuit die based on the filtered signal.

23. (cancelled)

24. (currently amended) An integrated circuit die ~~according to Claim 22~~ comprising:

an integrated circuit core; and

a feedback circuit to receive a signal, the signal corresponding to a proximity of an existing operation point of the integrated circuit die to a resonant operation point of the integrated circuit die, and to determine if a self-impedance of the integrated circuit die should be changed based on the signal,

wherein the determination of whether the self-impedance of the integrated circuit die should be changed based on the signal comprises:

a determination that the signal is less than a threshold value; and

a determination that the signal is negatively-sloped.

25. (original) An integrated circuit die according to Claim 24, further comprising:

an actuator to control the self-impedance of the integrated circuit die,

wherein the feedback circuit is to enable a filter if the signal is less than the threshold value and if the signal is negatively-sloped, filter the signal with the filter based on input requirements of an actuator, and output the filtered signal to the actuator to control the self-impedance of the integrated circuit die based on the filtered signal.